

# Supervivència a llarg plaç després d'una endarterectomia carotídia en una població amb baixa incidència de malaltia cardíaca: implicacions en la presa de decisions.

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Congrés de la SCACV Sitges. 2015



# INTRODUCCIÓ:

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## Updated Society for Vascular Surgery guidelines for management of extracranial carotid disease

John J. Ricotta, MD,<sup>a</sup> Ali AbuRahma, MD, FACS,<sup>b</sup> Enrico Ascher, MD,<sup>c</sup> Mark Eskandari, MD,<sup>d</sup> Peter Faries, MD,<sup>e</sup> and Raiech K. Lal, MD,<sup>f</sup> *Washington, DC; Charleston, WV; Rye Brook, NY; Chicago, Ill; New York, NY; and Baltimore, Md.*

Management of carotid bifurcation disease is of major importance. This guideline is based on published guidelines for carotid endarterectomy (CEA) and carotid artery stenting (CAS) in clinical trials comparing CEA and CAS. This current publication updates and characterizes the management of carotid bifurcation stenosis, risk stratification to select patients for appropriate interventional management (CEA or CAS), technical standards for performing CEA and CAS, the relative roles of CEA and CAS, and management of unusual conditions associated with extracranial carotid pathology. Recommendations are made using the GRADE (Grades of Recommendation Assessment, Development and Evaluation) system, as has been done with other Society for Vascular Surgery guideline documents. In contrast to the multispecialty guidelines recently published, the committee recommends CEA as the first-line treatment for most symptomatic patients with stenosis of 50% to 99% and asymptomatic patients with stenosis of 60% to 99%. The perioperative risk of stroke and death in asymptomatic patients must be <3% to ensure benefit for the patient. CAS should be reserved for symptomatic patients with stenosis of 50% to 99% at high risk for CEA for anatomic or medical reasons. CAS is not recommended for asymptomatic patients at this time. Asymptomatic patients at high risk for intervention or with <3 years life expectancy should be considered for

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## Recomanacions Societat Americana CV:



- Acceptable risc preoperatori
  - ÷ Morbimortalitat perioperatoria  $< 3\%$
- Garantitzar adequada suspervivència a llarg plaç.
  - ÷ Expectativa de vida del pacient  $> 3$  anys



# Risk scoring system to predict 3-year survival in patients treated for asymptomatic carotid stenosis

Francisco Alcocer, MD, Marjan Mujib, MD, Bruce Lowman, MD, Mark A. Patterson, MD, Marc A. Passman, MD, Thomas C. Matthews, MD, and William D. Jordan, MD, *Birmingham, Ala*

*Objective:* To identify risk factors and stratify their effect of compromising 3-year survival in patients treated for

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## Influence of Preoperative Risk Factors on Outcome After Carotid Endarterectomy

W. Charles Sternbergh III,

*Section on Vascular Surgery, Department of Surgery*

- Less than 311
- 311 - 726
- 726 - 1,358
- 1,358 - 1,953

## Contemporary Results of Carotid Endarterectomy for Asymptomatic

Karen Woo, MD; Joy Garg, MD; R

**Background and Purpose**—The validity of carotid endarterectomy (CEA) has been questioned recently due to the increasing effectiveness of medical management. Contemporary outcomes of CEA for asymptomatic carotid stenosis are

## Optimal selection of asymptomatic patients for carotid endarterectomy based on predicted 5-year survival

Jessica B. Wallaert, MD, MS,<sup>a</sup> Jack L. Cronenwett, MD,<sup>a</sup> Daniel J. Bertges, MD,<sup>b</sup> Andres Schanzer, MD,<sup>c</sup> Brian W. Nolan, MD, MS,<sup>a</sup> Randall De Martino, MD, MS,<sup>a</sup> Jens Eldrup-Jorgensen, MD,<sup>d</sup> and Philip P. Goodney, MD, MS,<sup>a</sup> for the Vascular Study Group of New England, *Lebanon, NH*;

...med to prevent stroke, long-term survival is essential to understand factors associated with 5-year survival following CEA in asymptomatic patients.

## Carotid Endarterectomy in Asymptomatic Patients With Limited Life Expectancy

Jessica B. Wallaert, MD; Randall R. De Martino, MD, MS; Samuel R.G. Finlayson, MD, MPH; Daniel B. Walsh, MD; Matthew A. Corriere, MD, MS; David H. Stone, MD; Jack L. Cronenwett, MD; Philip P. Goodney, MD, MS

**Background and Purpose**—Data from randomized trials assert that asymptomatic patients undergoing carotid endarterectomy (CEA) must live 3 to 5 years to realize the benefit of surgery. We examined how commonly CEA is performed among asymptomatic patients with limited life expectancy.

**Methods**—Within the American College of Surgeons National Quality Improvement Project we identified 8 conditions associated with limited life expectancy based on survival estimates using external sources. We then compared rates of





# OBJECTIUS DE L'ESTUDI:

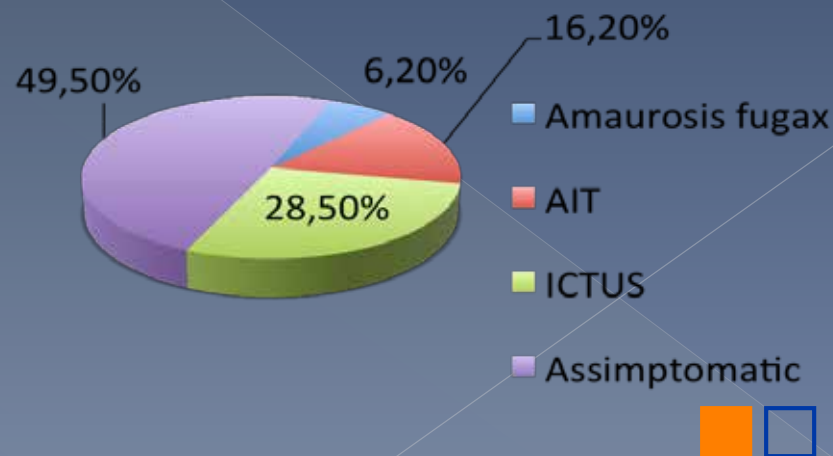
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- › Determinar la **supervivència** a llarg plaç i les causes de mortalitat tardana en pacients sotmesos a una endarterectomia carotídia en el nostre entorn
- › Definir els **factors de risc preoperatoris** associats a la supervivència
- › Avaluar les repercussions que els resultats anteriors poden tenir sobre la **pràctica clínica**

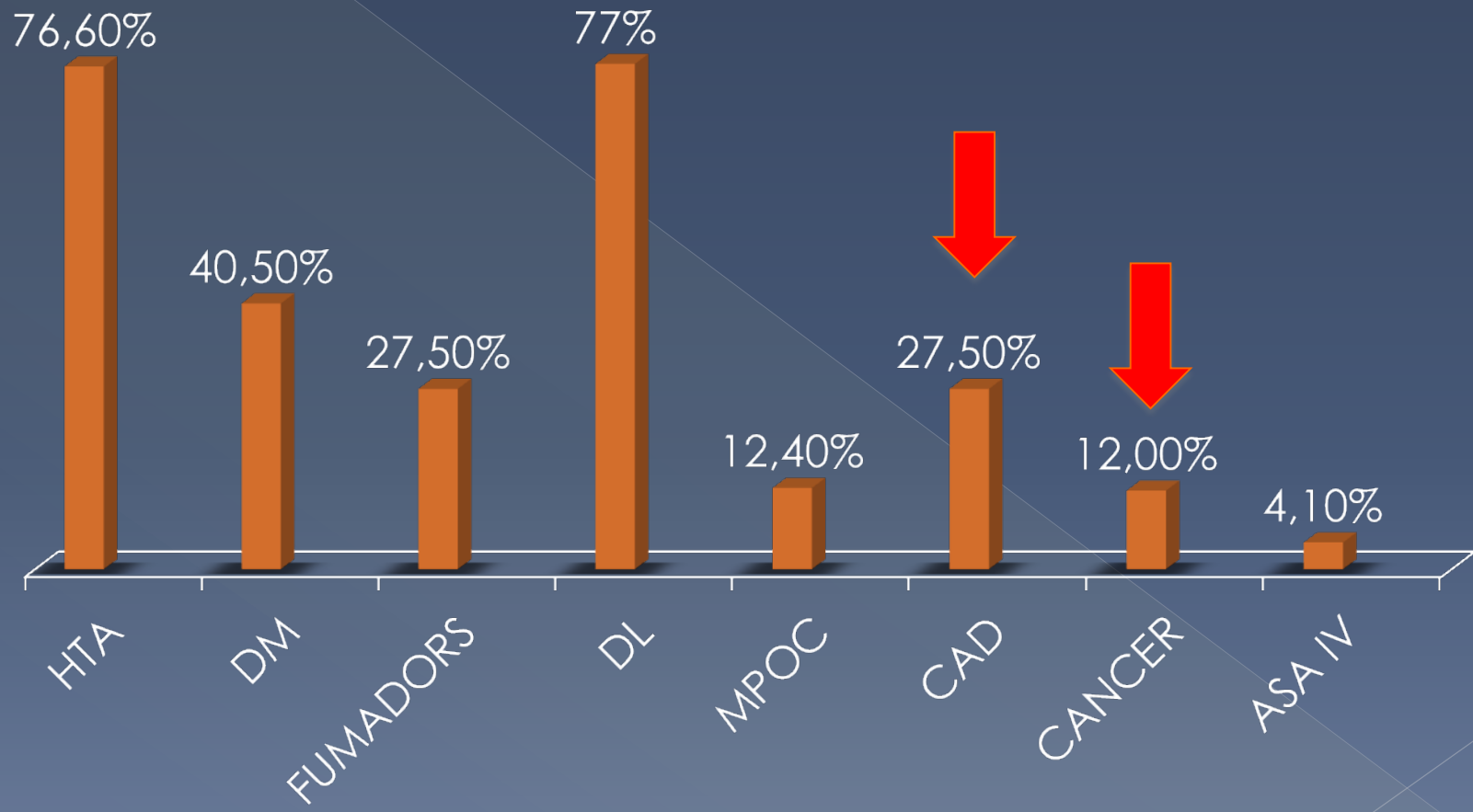


# MATERIAL I MÈTODES:

- > 291 pacients consecutius sotmesos a TEA carotídia
- > Període: 2005-2014 Hospital del Mar
- > Anàlisi retrospectiu
  
- > Característiques basals
  - ü Edat mitjana= 69 anys
  - ü 78,7% homes
  - ü 50,5% simptomàtics.



# MATERIAL I MÈTODES:

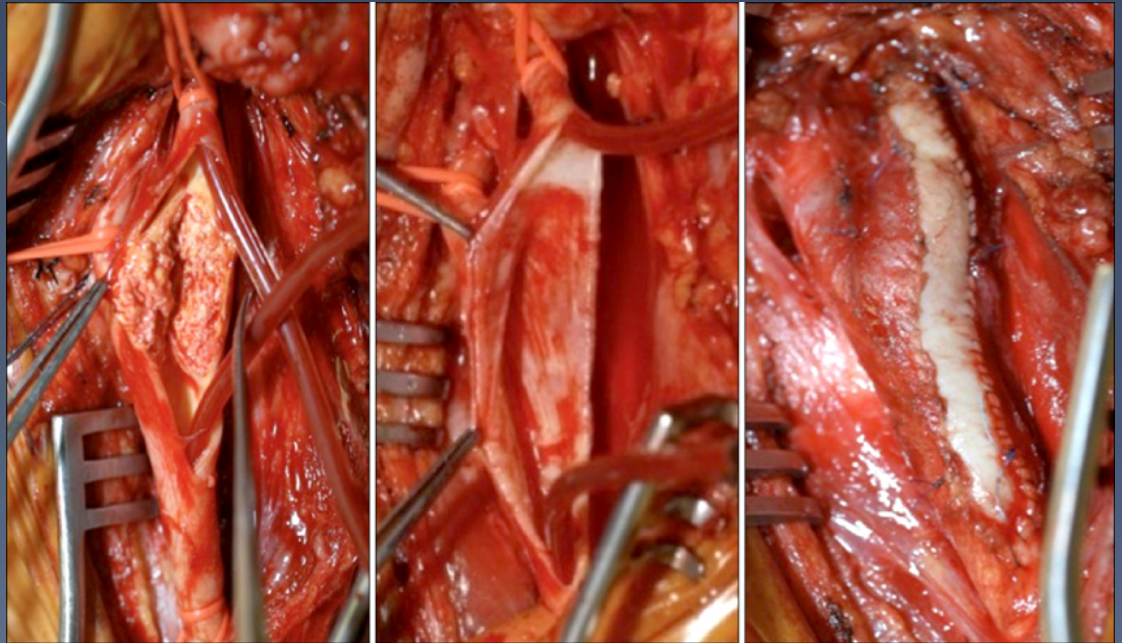




# MATERIAL I MÈTODES:

## TRACTAMENT QUIRÚRGIC:

- Anestèsia general
- Shunt de forma selectiva
- Fixació distal de la íntima
- Vena o PTFE
- Rea 24h, alta 3r dia



# ANÀLISIS ESTADÍSTICA:

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- SPSS i software estadístic R
- Supervivència (Kaplan-Meier)
- Model bivariat i multivariat (regressió de Cox)



# RESULTATS:

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## CURT TERMINI:

- Morbi-mortalitat immediata: 2,7%.
  - 4 AVC.
  - 4 èxits:
    - 2 de causa cardíaca.
    - 1 infecció respiratòria.
    - 1 broncoaspiració



# RESULTATS:

## LLARG TERMINI:

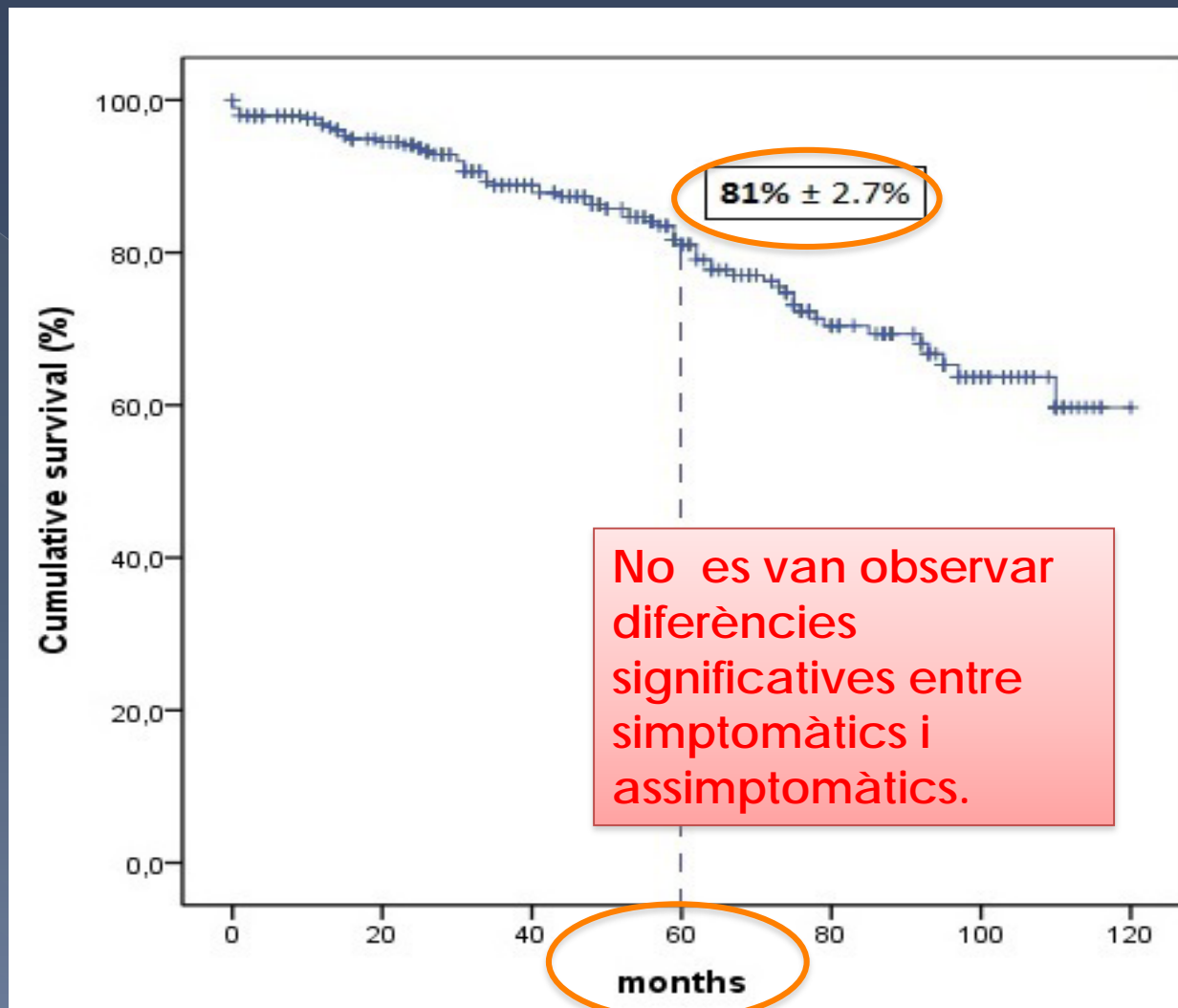
### SUPERVIVÈNCIA

Corba Kaplan-Meier

- 89% a 3 anys
- 81% a 5 anys

### SEGUIMENT

- 55 mesos
- (99,7% complet).



# RESULTATS:

AUTORS	SUPERVIVÈNCIA 5 ANYS
Woo K, Garg J, et al	96,2 %
Wallaert JB, Cronenwett JL, et al.	82%
Van Lammeren GW, Catanzariti LM, et al	87%
Alcocer F, Mujib M, et al.	86% (3 anys)

3a:89%  
5a:81%

Supervivència inferior als grups de referència



# RESULTATS:

## CAUSES DE MORT

- 62 morts durant el seguiment
- Causa principal de mort: CÀNCER
  - 4 coneguts prèviament
  - 18 diagnosticats posteriorment

**Table 2.** Causes of late death among patients submitted to carotid endarterectomy

	<i>Patients (%)</i>
Cancer	22 (35.5)
Heart disease	14 (22.6)
Respiratory disease	10 (16.1)
Dementia	4 (6.5)
Stroke	2 (3.2)
Sepsis	2 (3.2)
Kidney failure	1 (1.6)
Cirrhosis	1 (1.6)
Aneurysm rupture	1 (1.6)
Trauma	1 (1.6)
Unknown	4 (6.5)
Overall	62 (21.3%)





# RESULTATS: Model Multivariat.

## Factors Predictors de Supervivència a Llarg Plaç després de TEA Carotídia

	<i>HR</i>	<i>P value</i>
Edat (per any)	1.092	<.001
American Society of Anesthesiologists score		
ASA II	Referent	-
ASA III	1.158	.690
ASA IV	4.037	.015
Hemoglobina preoperatòria (per g/dl)	0.734	<.001

El poder de discriminació del model fou 0.719 (IC95%=0.644-0.794)

# RESULTATS:

- **NEOPLÀSIA** COM A PRINCIPAL CAUSA DE MORT EN LA NOSTRA COHORT



- **HEMOGLOBINA** FORTAMENT ASSOCIADA AMB SUPERVIVÈNCIA A LLARG PLAÇ



*¿Pot existir una neoplàsia oculta en el moment de la cirurgia?*



# RESULTATS

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- ž El valor de hemoglobina preoperatòria estava relacionat tant amb la mortalitat per càncer com per altra causa.
- ž El temps mig entre la intervenció i el diagnòstic de neoplàsia fou llarg(38 mesos)



# LIMITACIONS

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- ü Caràcter retrospectiu
- ü Mida de la mostra
- ü Prevalença de determinades variables
- ü Causa de mort
- ü Extrapolació territorial



# CONCLUSIONS

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- ž *La supervivència de la nostra cohort és baixa respecte altres grups.*
- ž *La mortalitat en el nostre grup està notablement marcada pel cancer.*
- ž *L'edat, la classificació ASA IV i el valor d'hemoglobina preoperatòria influeixen en la supervivència tardana en el nostre entorn.*



# COROL·LARI

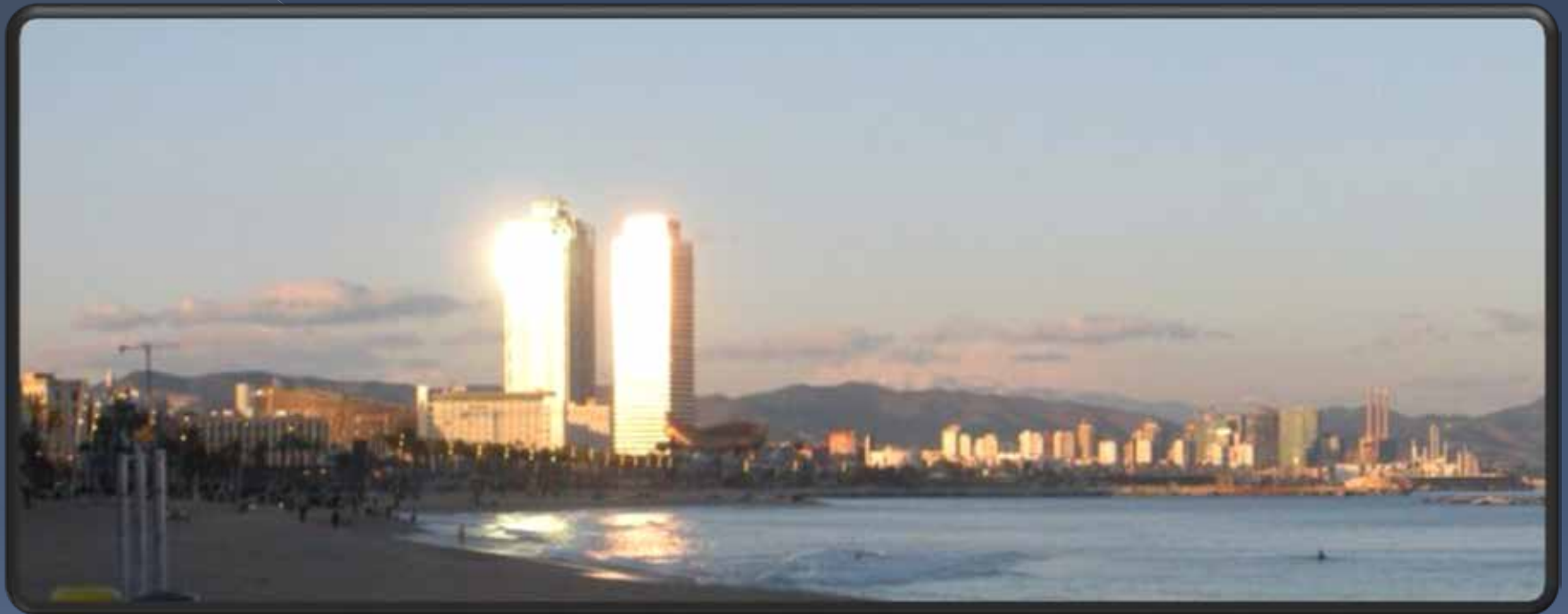
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- ž Els del models de supervivència tardana després d'una TEA, poden dependre de les característiques locals de la població, fet que cal tenir en compte en la presa de decisions.





# MOLTES GRÀCIES



Hospital  
del Mar

Parc  
de Salut  
**MAR**  
Barcelona